

### PLANNING COMMISSION STAFF REPORT

**REPORT DATE:** 

July 7, 2011

AGENDA DATE:

July 14, 2011

PROJECT ADDRESS: 2547 Medcliff Road (MST2011-0015, CDP2011-00004)

TO:

Planning Commission

FROM:

Planning Division, (805) 564-547(

Danny Kato, Senior Planner

Kelly Brodison, Assistant Planner

#### I. PROJECT DESCRIPTION

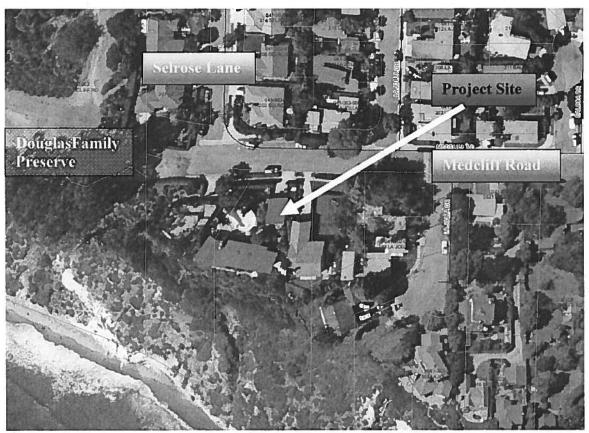
The project consists of a proposal to construct a 1,285 square foot addition, including a 264 square foot loft and an attached 65 square foot pool equipment storage area, to an existing 2,302 square foot onestory single-family residence with a detached 489 square foot two-car garage. The residence is located on a 1.11 acre lot located in the Hillside Design District and in the Appealable Jurisdiction of the Coastal Zone. The project includes the removal of the existing pool, and construction of a new pool and spa, solar panels, new stone and permeable patio areas, a new 436 square foot wood deck, new site walls, fences, and landscaping, including a new six foot tall stucco wall and entry gate. A total of 335 cubic yards of grading is proposed.

#### II. REQUIRED APPLICATIONS

The discretionary application required for this project is a Coastal Development Permit (CDP2009-00004) to allow the proposed development in the Appealable Jurisdiction of the City's Coastal Zone (SBMC §28.44.060);

#### III. RECOMMENDATION

The proposed project conforms to the City's Zoning and Building Ordinances and policies of the General Plan and the Local Coastal Plan. In addition, the size and massing of the project are consistent with the surrounding neighborhood. Therefore, Staff recommends that the Planning Commission approve the project, making the findings outlined in Section VII of this report, and subject to the conditions of approval in Exhibit A.



2547 Medcliff Road - Vicinity Map

APPLICATION DEEMED COMPLETE:

May 24, 2011

DATE ACTION REQUIRED:

July 23, 2011

## IV. SITE INFORMATION AND PROJECT STATISTICS

#### A. SITE INFORMATION

Applicant:	Steve Welton, SEPPS	Property Owner:	Ed Tomeo
Parcel Number:	041-362-016	Lot Area:	48,351.6 square feet
General Plan:	Residential 5 units/acre	Zoning:	E-3/SD-3
Existing Use:	Residential	Topography:	~46%
	Jses: th - Residential th – Pacific Ocean		esidential Douglas Family Preserve

#### B. PROJECT STATISTICS

	Existing	Proposed
Living Area	2,156 sq. ft.	3,376 sq. ft.
Garage	489 sq. ft.	489 sq. ft.
Accessory Space	146 sq. ft.	65 sq. ft.
Total '	2,791 sq. ft.	3,930 sq. ft.

#### V. ZONING ORDINANCE CONSISTENCY

Standard	Requirement/ Allowance	Existing	Proposed	
Setbacks -Front -Interior	20' 6'	19'-6" non-conforming 9'-6"(east) 9'3" (west)	19'-6" non-conforming 9'-6"(east) 6' (west)	
Building Height	30'	~15'	19'-3"	
Parking	2 covered	2 covered	2 covered	
Open Yard	1,250 sq. ft.	>1,250 sq. ft.	>1,250 sq. ft.	
Lot Coverage -Building -Paving/Driveway -Landscaping	N/A N/A N/A	2,953 sf 6.09% 4,639 sf 9.56% 40,892 sf 84.34%	3,835 sf 7.91% 2,473 sf 5.10% 42,173 sf 86.00%	

The proposed project would meet the requirements of the E-3 Zone related to building height, solar access, open yard requirements and parking.

#### VI. ISSUES

#### A. ENVIRONMENTAL REVIEW

Staff has determined that the project is categorically exempt from further environmental review pursuant to California Environmental Quality Act Guidelines Section 15301 (Minor Additions to Existing Facilities). Section 15301 allows for additions to existing private structures that do not exceed 10,000 square feet if the project is in an area where all public services and facilities are available (to allow for maximum development permissible in the General Plan) and the area in which the project is located is not environmentally sensitive.

There is an existing 10" oak tree near the southeast corner of the residence that is proposed to be retained. A Tree Assessment and Protection Plan prepared by Bill Spiewak, dated March 23, 2011, (Exhibit E) provides Tree Protection Measures that have been added as conditions of approval.

#### B. DESIGN REVIEW

This project was reviewed by the SFDB on April 25, 2011, (meeting minutes are attached as Exhibit D). The SFDB stated that the proposed project is appropriate and compatible with the

neighborhood and found the overall style, size, bulk, and scale to be acceptable. The project will return to the full board for a Project Design Approval subsequent to the Planning Commission's decision.

#### Floor Area Ratio

The proposed total of 3,930 square feet on the 1.11 acre lot (48,352 square feet) results in a Floor-to-Lot Area Ratio (FAR) of 8% which is 78% of the SFDB's maximum FAR guideline.

#### C. Drainage and Water Quality Analysis

This project is required to comply with Tier 3 of the Storm Water Management Plan (treatment, rate and volume reduction) because it is being reviewed by the Planning Commission and it's location in the Hillside Design District. The project is designed to significantly reduce runoff to the City's storm drain system and the bluff top by using the following Post-Construction Best Management Practices:

- Eliminating 1,275 square feet of impervious area from the site
- Providing positive drainage gradient away from foundations
- Conveying surface water runoff in pipes or in lined channels to discharge areas that are relatively level or that are adequately protected against erosion.
- Conveying water from roof downspouts in solid pipes that discharge in controlled drainage localities. Surface drainage gradients shall be planned to prevent ponding and promote drainage of surface water away from building foundations, edges of pavements, and sidewalks.
- Filtering surface materials and vegetation will be installed around the site and concentrations times have been maximized

However, in order to meet the Volume Reduction requirement to retain onsite the volume of a 1" storm event, a 5,000 gallon double walled fiberglass tank would be required. This size tank would take up a large portion of the front yard, and would have significant costs for installation and maintenance. For these reasons, the applicant requested a partial waiver from this requirement (Exhibit H). The Creeks Division granted a partial waiver from the City's storm water management requirement due to site and cost constraints that deem the requirement to be technically and logistically infeasible.

#### D. GENERAL PLAN CONSISTENCY

The project site is located in the West Mesa neighborhood, as identified in the Land Use Element of the General Plan, and has a land use designation of Residential, five units per acre. This area is recognized as being primarily developed with small-lot, single-family residences. The new residence would remain consistent with the pattern of single-family residential development in the area, which is a mixture of one and two-story homes. No change in residential density is proposed.

As discussed in the Seismic Safety-Safety Element of the General Plan, the Mesa bluffs are subject to seacliff retreat. The project includes an adequate setback from the edge of the cliff, and drainage is being directed away from the bluff edge (refer to more detailed discussion in Local Coastal Plan Consistency section). Therefore, the project can be found in conformance with the General Plan.

#### C. COMPLIANCE WITH THE LOCAL COASTAL PROGRAM

The project site is located in Component Two of the Local Coastal Plan (LCP), which is located between Arroyo Burro Creek and the westerly boundary of Santa Barbara City College. The LCP states that the primary land use of this area is single-family residential, and that there is very limited additional development potential. The major coastal issues identified for Component Two include seacliff retreat and flooding hazards; public access, both vertically and laterally along the bluffs, overuse of public facilities; protection of recreational access; protection of archaeological resources and the maintenance of existing coastal views and open space.

The project site was not found to be archaeologically sensitive and is not subject to flooding. The site does not serve as a public facility, recreation area, or public coastal access point. The proposed development would not alter any natural landforms. The project can be found consistent with the applicable policies of the California Coastal Act and Local Coastal Plan, and all implementing guidelines. Coastal issues applicable to the subject property are discussed below.

#### **Views**

The scenic and visual qualities of coastal areas should be considered and protected as a resource of public importance (Coastal Act Section 30251). Projects along the coast should be sited and designed to protect views to and along the ocean and scenic coastal areas (LCP Policy 9.1). The project site is currently developed with a one-story single-family residence. The project includes a two-story addition to the residence. It is designed as a loft, and the Single Family Design Board stated that the proposed project is appropriate and compatible with the neighborhood, and that the proposed project's overall style, size, bulk, and scale are acceptable.

#### Neighborhood Compatibility

LCP Policy 5.3 states that new development must be compatible in terms of scale, size and design with the neighborhood, and that new development shall not overburden public circulation or on-street parking resources. The project has been reviewed by the Single-Family Design Board and has been found to be compatible with the neighborhood. The project includes a two-car garage, which will accommodate the site's parking demand.

#### Seacliff Retreat

The General and Local Coastal Plans strive to eliminate or reduce the hazards created by loading and drainage related issues, which contribute to bluff erosion and undercutting of the slope. The Local Coastal Plan also states that new development should be located outside the 75-year geological setback to protect bluffs from erosion and maintain the natural topography

of the bluffs. The 75-year geological setback is determined by an engineering geologist based on an average rate of retreat. A Geologic Evaluation was prepared by Campbell Geo Inc. (dated March 25, 2011, Exhibit F), and determined that the rate of retreat for this particular property is approximately 0.06 feet per year. The existing house and proposed addition are located outside the 75-year setback line. The geology report recommended a seven foot setback from the geologic top of bluff, and all proposed improvements to the drainage system, including gutters and downspouts must direct water away from the bluff, consistent with LCP Policy 8.1.

No improvements are proposed within the 75-year setback area (i.e. no changes are proposed to the bluff itself). The City's LCP discourages the installation of lawn in order to prevent excess water from being applied to the top of the bluff. The proposed landscape will be "water wise" per SBMC 22.80.020. No invasive plants will be used in the landscape plan, and no irrigation is proposed on the bluff. Slope stabilizing plants will be used to preserve the bluff and minimize erosion to the maximum extent feasible.

The project minimizes risks to life and property by preventing loading along the bluff top and assuring stability and structural integrity. The redirection of drainage away from the bluff will meet the goals of the Local Coastal Plan, the Coastal Act, and the California Code of Regulations.

#### VII. FINDINGS

The Planning Commission finds the following:

## D. COASTAL DEVELOPMENT PERMIT (SBMC §28.44.150)

The project is consistent with the policies of the California Coastal Act, the City's Local Coastal Plan, all implementing guidelines, and applicable provisions of the Code because the addition is consistent with the General Plan and the Zoning Ordinance, is compatible with the existing neighborhood, would not be visible from the beach or impact views from public view corridors, would not impact public access, would not contribute to safety or drainage hazards on the site, including those related to seacliff retreat, and is not located on an archaeologically sensitive site, as discussed in Section VI.C of the staff report.

#### Exhibits:

- A. Conditions of Approval
- B. Site Plan
- C. Applicant's letter, dated May 20, 2011
- D. SFDB Minutes
- E. Tree Assessment and Protection Plan prepared by Bill Spiewak, dated March 23, 2011
- F. Geology Evaluation prepared by Campbell Geo, Inc., dated March 25, 2001 (exhibits available upon request)
- G. Waiver Requested from Tier 3 SWMP requirements prepared by Penfield & Smith dated May 16, 2011

#### PLANNING COMMISSION CONDITIONS OF APPROVAL

### 2547 MEDCLIFF ROAD COASTAL DEVELOPMENT PERMIT JULY 14, 2011

- In consideration of the project approval granted by the Planning Commission and for the benefit of the owner(s) and occupant(s) of the Real Property, the owners and occupants of adjacent real property and the public generally, the following terms and conditions are imposed on the use, possession, and enjoyment of the Real Property:
  - A. **Order of Development.** In order to accomplish the proposed development, the following steps shall occur in the order identified:
    - 1. Obtain all required design review approvals.
    - 2. Pay Land Development Team Recovery Fee.
    - 3. Make application and obtain a Building Permit (BLD) to demolish any structures / improvements and/or perform rough grading. Comply with condition G "Construction Implementation Requirements."
    - 4. Record any required documents (see Recorded Conditions Agreement section).
    - 5. Permits.
      - a. Make application and obtain a Building Permit (BLD) for construction of approved development.
      - b. Make application and obtain a Public Works Permit (PBW) for all required public improvements.

Details on implementation of these steps are provided throughout the conditions of approval.

- B. **Recorded Conditions Agreement.** The Owner shall execute a written instrument, which shall be prepared by Planning staff, reviewed as to form and content by the City Attorney, Community Development Director and Public Works Director, recorded in the Office of the County Recorder, and shall include the following:
  - 1. **Approved Development**. The development of the Real Property approved by the Planning Commission on July 14, 2011, is limited to a 1,285 square foot addition to an existing 2,645 square foot one-story single-family residence with an attached two-car garage. The project includes removal of the existing pool, and construction of a new pool and spa, solar panels, new stone and permeable patio areas, a new 436 square foot cantilevered wood deck, new site walls, fences, and landscaping, including a new six foot tall stucco wall and entry gate, and the improvements shown on the plans signed by the chairman of the Planning Commission on said date and on file at the City of Santa Barbara.
  - 2. **Uninterrupted Water Flow.** The Owner shall provide for the continuation of any historic uninterrupted flow of water onto the Real Property including, but not

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- limited to, swales, natural watercourses, conduits and any access road, as appropriate.
- 3. **Recreational Vehicle Storage Limitation.** No recreational vehicles, boats, or trailers shall be stored on the Real Property unless enclosed or concealed from view as approved by the Single Family Design Board (SFDB).
- 4. Landscape Plan Compliance. The Owner shall comply with the Landscape Plan approved by the Single Family Design Board (SFDB). Such plan shall not be modified unless prior written approval is obtained from the SFDB. The landscaping on the Real Property shall be provided and maintained in accordance with said landscape plan, including any tree protection measures. If said landscaping is removed for any reason without approval by the SFDB, the owner is responsible for its immediate replacement.
- 5. Oak Tree Protection. The existing Oak tree shown on the Landscape Plan shall be preserved, protected, and maintained in accordance with the recommendations contained in the arborist's report prepared by Bill Spiewak, dated March 23, 2011. A copy of this report shall be attached to the recorded conditions as an exhibit.
- 6. Storm Water Pollution Control and Drainage Systems Maintenance. Owner shall maintain the drainage system and storm water pollution control devices in a functioning state. Should any of the project's surface or subsurface drainage structures or storm water pollution control methods fail to capture, infiltrate, and/or treat water, or result in increased erosion, the Owner shall be responsible for any necessary repairs to the system and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the Owner shall submit a repair and restoration plan to the Community Development Director to determine if an amendment or a new Building Permit and Coastal Development Permit is required to authorize such work. The Owner is responsible for the adequacy of any project-related drainage facilities and for the continued maintenance thereof in a manner that will preclude any hazard to life, health, or damage to the Real Property or any adjoining property.
- 7. Coastal Bluff Liability Limitation. The Owner understands and is advised that the site may be subject to extraordinary hazards from waves during storms and erosion, retreat, settlement, or subsidence and assumes liability for such hazards. The Owner unconditionally waives any present, future, and unforeseen claims of liability on the part of the City arising from the aforementioned or other natural hazards and relating to this permit approval, as a condition of this approval. Further, the Owner agrees to indemnify and hold harmless the City and its employees for any alleged or proven acts or omissions and related cost of defense, related to the City's approval of this permit and arising from the aforementioned or other natural hazards whether such claims should be stated by the Owner's successor-in-interest or third parties.

- 8. Geotechnical Liability Limitation. The Owner understands and is advised that the site may be subject to extraordinary hazards from landslides, erosion, retreat, settlement, or subsidence and assumes liability for such hazards. The Owner unconditionally waives any present, future, and unforeseen claims of liability on the part of the City arising from the aforementioned or other natural hazards and relating to this permit approval, as a condition of this approval. Further, the Owner agrees to indemnify and hold harmless the City and its employees for any alleged or proven acts or omissions and related cost of defense, related to the City's approval of this permit and arising from the aforementioned or other natural hazards whether such claims should be stated by the Owner's successor-in-interest or third parties.
- 9. **Areas Available for Parking.** All parking areas and access thereto shall be kept open and available in the manner in which it was designed and permitted.
- C. **Design Review.** The project, including public improvements, is subject to the review and approval of the Single Family Design Board (SFDB). The SFDB shall not grant project design approval until the following Planning Commission / Staff Hearing Officer land use conditions have been satisfied.
  - 1. **Tree Protection Measures.** The landscape plan and grading plan shall include the following tree protection measures:
    - a. **Tree Protection.** All trees not indicated for removal on the approved landscape plan shall be preserved, protected, and maintained, in accordance with the Tree Protection Plan prepared by Bill Spiewak dated March 23, 2011:
    - b. **Landscaping Under Trees.** Landscaping under the tree shall be compatible with the preservation of the trees, as determined by the SFDB.
    - c. Oak Tree. The following additional provisions shall apply to the existing oak tree on site:
      - (1) No irrigation system shall be installed within three feet of the dripline of any oak tree.
      - (2) The use of herbicides or fertilizer shall be prohibited within the drip line of any oak tree.
      - (3) No storage of heavy equipment or materials, or parking shall take place within five (5) feet of the dripline of any oak tree.
    - d. **Tree Protection Plan.** Include a note on the plans that the recommendations/conditions contained in the Tree Protection Plan prepared by Bill Spiewak, dated March 23, 2011, shall be implemented.
  - 2. **Appropriate Plants on Bluff.** Special attention shall be paid to the appropriateness of the existing and proposed plant material on the bluff. As

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described in Geologic Evaluation of Coastal Bluff prepared by Campbell Geo, Inc. dated March 25, 2011, existing iceplant and other vegetation on the seacliff face can and should be left in place to minimize shallow soil disturbance and erosion. New plantings at the top of bluff and the adjacent yard should be drought-tolerant, preferably requiring ino supplemental irrigation. To minimize the need for irrigation to get plants established, new planting should be conducted in late fall. All existing succulent plants that add weight to the bluff and/or contribute to erosion shall be removed in a manner that does not disturb the root system and replaced with appropriate plant material in a manner that does not increase the rate of erosion.

- Irrigation System. The irrigation system shall be designed and maintained with 3. the most current technology to prevent a system failure. Watering of vegetation on the bluff edge shall be kept to the minimum necessary for plant survival. The drip system along the bluff edge shall be removed after one full season of plant growth. As described in Geologic Evaluation of Coastal Bluff prepared by Campbell Geo, Inc. dated March 25, 2011, drainage controls shall be implemented to prevent surface water runoff over the seacliff face. Landscaped areas should have hard pipe drainage systems. The runoff should be conveyed to an area, such as Medcliff Road, where the seacliff will not be eroded. No stormwater should be captured for onsite infiltration or otherwise retained onsite, except for temporary storage to smooth out discharge spikes, per the City's current policy for new development. The proposed pool is to be located no less than 60 feet from the bluff top setback, north (inland) of the existing residence. Should leakage be noted by anomalous water level drops, the pool should be emptied until the leak is repaired. Should shallow groundwater be found to daylight in the bluff face after development is complete, irrigation practices should be modified to the extent necessary to correct that condition or an investigation of other possible sources (pool leakage, broken pipes, etc.) should be conducted.
- D. Requirements Prior to Permit Issuance. The Owner shall submit the following, or evidence of completion of the following, for review and approval by the Department listed below prior to the issuance of any permit for the project. Some of these conditions may be waived for demolition or rough grading permits, at the discretion of the department listed. Please note that these conditions are in addition to the standard submittal requirements for each department.
  - 1. Public Works Department.
    - a. Water Rights Assignment Agreement. The Owner shall assign to the City of Santa Barbara the exclusive right to extract ground water from under the Real Property in an Agreement Assigning Water Extraction Rights. Engineering Division Staff prepares said agreement for the Owner's signature.

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- b. **Drainage and Water Quality.** The project is required to comply with Tier 3 of the Storm Water Management Plan (treatment, rate and volume) with a partial waiver from the requirement to install a 5,000 gallon double walled fiberglass tank. The Owner shall submit drainage calculations prepared by a registered civil engineer or licensed architect demonstrating that the new development will comply with the City's Storm Water Management Plan. Project plans for grading, drainage, stormwater facilities and treatment methods, and project development, shall be subject to review and approval by the City Building Division and Public Works Department. Sufficient engineered design and adequate measures shall be employed to ensure that no significant construction-related or long-term effects from increased runoff, erosion and sedimentation, urban water pollutants (including, but not limited to trash, hydrocarbons, fertilizers, bacteria, etc.), or groundwater pollutants would result from the project.
- c. Medcliff Road Public Improvements. The Owner shall submit building plans for construction of improvements along the property frontage on Medcliff Road if any improvements are proposed for the public right of way. Any work in the public right-of-way requires a Public Works Permit.
- d. Construction-Related Truck Trips. Construction-related truck trips for trucks with a gross vehicle weight rating of three tons or more shall not be scheduled during peak hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.) in order to help reduce truck traffic on adjacent streets and roadways.

## 2. Community Development Department.

- a. **Recordation of Agreements.** The Owner shall provide evidence of recordation of the written instrument that includes all of the Recorded Conditions identified in condition B "Recorded Conditions Agreement" to the Community Development Department prior to issuance of any building permits.
- b. **Design Review Requirements.** Plans shall show all design, landscape and tree protection elements, as approved by the appropriate design review board and as outlined in Section C "Design Review," and all elements/specifications shall be implemented on-site.
- c. Conditions on Plans/Signatures. The final Resolution shall be provided on a full size drawing sheet as part of the drawing sets. Each condition shall have a sheet and/or note reference to verify condition compliance. If the condition relates to a document submittal, indicate the status of the submittal (e.g., Final Map submitted to Public Works Department for review). A statement shall also be placed on the sheet as follows: The undersigned have read and understand the required conditions, and agree to

Planning Commission Conditions of Approval 2547 Medcliff Road July 14,2011 Page 6 of 9

abide by any and all conditions which are their usual and customary responsibility to perform, and which are within their authority to perform. Signed:

Property Owner	Date	
Contractor	Date	License No.
Architect	Date	License No.
Engineer	Date	License No.

- E. Construction Implementation Requirements. All of these construction requirements shall be carried out in the field by the Owner and/or Contractor for the duration of the project construction, including demolition and grading.
  - 1. Construction Contact Sign. Immediately after Building permit issuance, signage shall be posted at the points of entry to the site that list the contractor's name, contractor's telephone number(s), construction work hours, site rules, and construction-related conditions, to assist Building Inspectors and Police Officers in the enforcement of the conditions of approval. The font size shall be a minimum of 0.5 inches in height. Said sign shall not exceed six feet in height from the ground if it is free-standing or placed on a fence. It shall not exceed 24 square feet if in a multi-family or commercial zone or six square feet if in a single family zone.
  - 2. **Construction Hours.** Construction (including preparation for construction work) shall only be permitted Monday through Friday between the hours of 7:00 a.m. and 5:00 p.m. and Saturdays between the hours of 9:00 a.m. and 4:00 p.m., excluding the following holidays: (look at longer or shorter hours, no Saturday construction, depending on project location; also consider special hours for non-noisy construction; e.g., 7:00-8:00 a.m.)

New Year's Day
Martin Luther King's Birthday
Presidents' Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Following Thanksgiving Day
Christmas Day

January 1st\*
3rd Monday in January
3rd Monday in February
Last Monday in May
July 4th\*
1st Monday in September
4th Thursday in November
Friday following Thanksgiving Day
December 25th\*

<sup>\*</sup>When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday, respectively, shall be observed as a legal holiday.

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When, based on required construction type or other appropriate reasons, it is necessary to do work outside the allowed construction hours, contractor shall contact the Chief of Building and Safety to request a waiver from the above construction hours, using the procedure outlined in Santa Barbara Municipal Code §9.16.015 Construction Work at Night. Contractor shall notify all residents within 300 feet of the parcel of intent to carry out said construction a minimum of 48 hours prior to said construction. Said notification shall include what the work includes, the reason for the work, the duration of the proposed work and a contact number.

- 3. **Construction Storage/Staging.** Construction vehicle/ equipment/ materials storage and staging shall be done on-site. No parking or storage shall be permitted within the public right-of-way, unless specifically permitted by the Transportation Manager with a Public Works permit.
- 4. Unanticipated Archaeological Resources Contractor Notification. discovery measures shall be implemented per the City master Environmental Assessment throughout grading and construction: Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and the Owner shall retain an archaeologist from the most current City Qualified Archaeologists List. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative from the most current City qualified Barbareño Chumash Site Monitors List, etc.

If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

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A final report on the results of the archaeological monitoring shall be submitted by the City-approved archaeologist to the Environmental Analyst within 180 days of completion of the monitoring and prior to any certificate of occupancy for the project.

- F. Prior to Certificate of Occupancy. Prior to issuance of the Certificate of Occupancy, the Owner of the Real Property shall complete the following:
  - 1. **Repair Damaged Public Improvements.** Repair any public improvements (curbs, gutters, sidewalks, roadways, etc.) or property damaged by construction subject to the review and approval of the Public Works Department per SBMC §22.60.090. Where tree roots are the cause of the damage, the roots shall be pruned under the direction of a qualified arborist.
  - 2. **New Construction Photographs.** Photographs of the new construction, taken from the same locations as those taken of the story poles prior to project approval, shall be taken, attached to 8 ½ x 11" board and submitted to the Planning Division.

#### G. General Conditions.

- 1. **Prior Conditions.** These conditions are in addition to the conditions identified in Planning Commission Resolution #060-89.
- 2. Compliance with Requirements. All requirements of the city of Santa Barbara and any other applicable requirements of any law or agency of the State and/or any government entity or District shall be met. This includes, but is not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.), the 1979 Air Quality Attainment Plan, and the California Code of Regulations.
- 3. Approval Limitations.
  - a. The conditions of this approval supersede all conflicting notations, specifications, dimensions, and the like which may be shown on submitted plans.
  - b. All buildings, roadways, parking areas and other features shall be located substantially as shown on the plans approved by the Planning Commission / Staff Hearing Officer.
  - c. Any deviations from the project description, approved plans or conditions must be reviewed and approved by the City, in accordance with the Planning Commission Guidelines. Deviations may require changes to the permit and/or further environmental review. Deviations without the above-described approval will constitute a violation of permit approval.
- 4. **Land Development Team Recovery Fee Required.** The land development team recovery fee (30% of all planning fees, as calculated by staff) shall be paid at time of building permit application.

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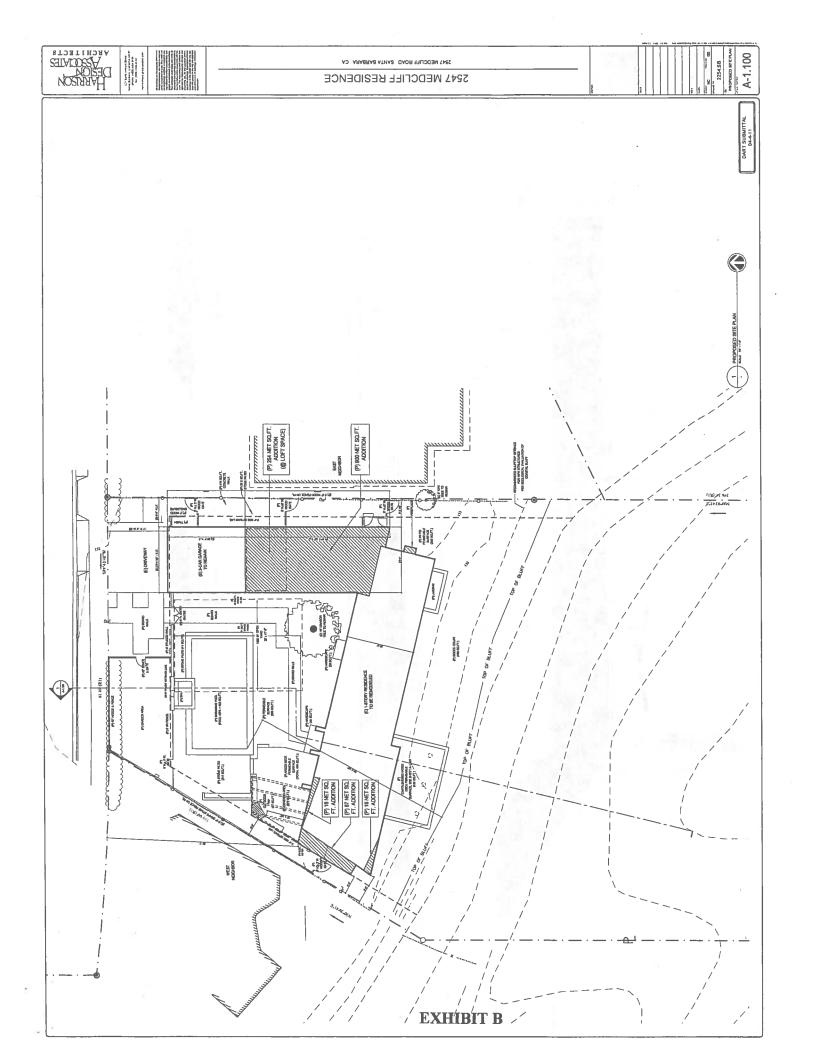
5. Litigation Indemnification Agreement. In the event the Planning Commission approval of the Project is appealed to the City Council, Applicant/Owner hereby agrees to defend the City, its officers, employees, agents, consultants and independent contractors ("City's Agents") from any third party legal challenge to the City Council's denial of the appeal and approval of the Project, including, but not limited to, challenges filed pursuant to the California Environmental Quality Act (collectively "Claims"). Applicant/Owner further agrees to indemnify and hold harmless the City and the City's Agents from any award of attorney fees or court costs made in connection with any Claim.

Applicant/Owner shall execute a written agreement, in a form approved by the City Attorney, evidencing the foregoing commitments of defense and indemnification within thirty (30) days of being notified of a lawsuit regarding the Project. These commitments of defense and indemnification are material conditions of the approval of the Project. If Applicant/Owner fails to execute the required defense and indemnification agreement within the time allotted, the Project approval shall become null and void absent subsequent acceptance of the agreement by the City, which acceptance shall be within the City's sole and absolute discretion. Nothing contained in this condition shall prevent the City or the City's Agents from independently defending any Claim. If the City or the City's Agents decide to independently defend a Claim, the City and the City's Agents shall bear their own attorney fees, expenses, and costs of that independent defense.

#### NOTICE OF COASTAL DEVELOPMENT PERMIT TIME LIMITS:

The Planning Commission / Staff Hearing Officer action approving the Coastal Development Permit shall expire two (2) years from the date of final action upon the application, per Santa Barbara Municipal Code §28.44.230, unless:

- 1. Otherwise explicitly modified by conditions of approval for the coastal development permit.
- 2. A Building permit for the work authorized by the coastal development permit is issued prior to the expiration date of the approval.
- 3. The Community Development Director grants an extension of the coastal development permit approval. The Community Development Director may grant up to three (3) one-year extensions of the coastal development permit approval. Each extension may be granted upon the Director finding that: (i) the development continues to conform to the Local Coastal Program, (ii) the applicant has demonstrated due diligence in completing the development, and (iii) there are no changed circumstances that affect the consistency of the development with the General Plan or any other applicable ordinances, resolutions, or other laws.



# PRINCIPAL PLANNERS SUZANNE ELLEDGE • LAUREL F. PEREZ

20 May 2011



CITY OF SANTA BARBARA PLANNING DIVISION

Planning Commission City of Santa Barbara 630 Garden Street Santa Barbara, CA 93101

RE: Project Description Letter for 2547 Medcliff; APN 041-362-016

Dear Commissioners:

Suzanne Elledge Planning & Permitting Services is the agent for 2547 Medclif LLC. On behalf of the owners, Ed and Joan Tomeo, our office is pleased to provide the following project description for a proposed remodel and addition to their bluff-side residence located at 2547 Medcliff Road, within the E-3 zone district.

The applicants purchased the property in 2010 with the intention of making Santa Barbara their permanent retirement residence and have since consulted with numerous professionals prior to preparing an application to the City for the proposed development. The applicants have engaged Harrison Design Associates, the Office of Katie O'Reilly Rogers and Allen & Associates Construction to assist them in incorporating numerous sustainable and green building methods into the construction.

Due to its location proximate to the bluff, the applicants also engaged geologist Steve Campbell to provide recommendations and guidance to the team in the development of foundation design, the treatment of storm water and drainage and to develop a sea cliff retreat analysis pursuant to the City of Santa Barbara and Coastal Commission standards.

The applicants are requesting a Coastal Development Permit (CDP) for the construction of the improvements discussed in this letter. The project has also undergone review and comment by the Single Family Design Board (SFDB) and is subject to the criteria of the Neighborhood Preservation Ordinance (NPO). The SFDB provided positive comments about the project and have indicated that the project is ready to proceed to your Commission.

#### **Property History**

The existing ~2,156 SF residence was constructed in approximately 1958. The lot was part of a two-lot subdivision in 1991 (Resolution 060-89) that created a legal

1029 SANTA BARBARA STREET, SANTA BARBARA, CALIFORNIA 93101 TEL 805 966-2758 • FAX 805 966-2759 • E-MAIL info@sepps.com Planning Commission 20 May 2011 Page 2 of 10

lot for the construction of the neighboring residence located at 2545 MedCliff Road.

#### **Existing Setting**

The property is located on a 1.11 acre parcel in the West Mesa neighborhood, just east of the Douglas Family Preserve and adjacent to the Pacific Ocean. The north side of the property is generally flat. South of the existing main residence, the property slopes down the coastal bluff. Much of the bluff topography at the Tomeo site is rather unusual, as it slopes down from the main residence pad then rises to a slightly lower ridge before dropping down again to the beach. Due to this unusual topography, the residence is located more than 200 feet, horizontally, inland from the toe or bottom of the coastal bluff.

The site is currently developed with the following structures (provided in net SF):

- 2,156 square foot 4-bedroom residence
- 489 square foot detached 2-car garage
- 91 square foot aviary
- 55 square foot pool equipment structure
- ~650 square foot swimming pool
- Associated patios and decks

#### **Proposed Demolition**

The following on-site structures are proposed to be demolished. Notes on the future disposition of that use are included.

- Aviary (removed)
- Pool Equipment (relocated to proposed addition, attached to main residence)
- Swimming Pool (relocated)
- Hardscape and Deck (removed and re-designed per landscape plans)

#### **Proposed Grading**

Minor amounts of grading will be required to relocate the existing pool and prepare the site for the new addition. Approximately 235 cubic yards of cut (primarily for the new pool and storm water tank) and 135 cubic yards of fill (primarily to fill the existing pool) will be required. It's unclear at this time how much excess cut will remain after shrinkage, but significant amounts of export are not expected. See the plan cover sheet for specific cut and fill calculations.

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#### **Proposed Improvements**

The owners are pleased to have Harrison Design Associates (HDA) prepare the proposed design for the remodel and addition to the residence. Rather than completely demolish the residence, the owners asked HDA to focus on a design that retains much of the existing dwelling and incorporates many sustainable design principles.

The re-design will also enable the applicants to take advantage of the spectacular ocean views available from the residence as well as create a modernized interior layout with a modest increase in floor area which primarily provide for larger bedrooms and a larger living area on the west side of the residence. The Office of Katie O'Reilly Rogers has been engaged to completely redesign the outdoor living areas and to incorporate drought tolerant landscaping.

#### Main Residence

As mentioned, the entire 4-bedroom residence will be remodeled. No additional bedrooms are proposed. A total of 1,285 SF of additional interior space is proposed which includes 264 SF of conditioned loft space that qualifies as square footage for FAR purposes. The architect has verified that the proposed residence will comply with the city's solar ordinance.

A breakdown of the additions is as follows:

- 900 SF on the east side of the property connecting the existing residence and garage:
  - o 65 SF unheated pool equipment room without interior access.
  - 835 SF remainder of the addition includes relocated living spaces, a pool bathroom and storage.
- 121 SF addition on the west side of the residence that will provide a slightly larger kitchen, more efficient use of space and better placement of windows.
- 264 SF of loft space to be used as a den and exercise room will be accessed by a new staircase as shown on Sheet A-2.100.

Two (2) solar thermal panel systems are proposed for the roof which will provide the energy needed to heat the pool and domestic hot water for the residence. The panels will be located on the south facing portions of the roof above the new wing as shown on the roof plan and will not be visible except from above. Solar electric photovoltaic panels are also planned to be installed on the new

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butterfly roof section above the living room and kitchen. It is anticipated that these panels will satisfy most of the home's electric energy needs.

#### <u>Garage</u>

The existing two-car garage will remain the same size, with no substantial changes proposed other than new doors and windows. A new wooden trash enclosure will be constructed on the east side of the garage, as shown on Sheet A1.100 of the plans.

#### Floor Area Ratio

The proposed project will add 1,021 SF of ground floor finished space and 264 SF of loft space to the existing residence. Taking into account the proposed demolitions and additions, the total net square feet of development is 3,930 SF, including the garage. FAR calculations are provided on the cover sheet, and the proposed project would have an FAR of approximately 78% of the maximum recommended by the City.

#### <u>Landscaping</u> and other outdoor improvements

#### New Pool

A new pool and spa is proposed to update the aging pool in the front yard. . Potential water intrusion from a pool leak into the surrounding soil will be prevented by the use of double walled construction or other City-approved pool lining system. The pool will be heated by proposed roof-mounted solar panels and will utilize a motorized child-safe pool cover system for pool protection and heat retention.

#### Decks

Proposed decks both north and south of the residence will provide outdoor recreation space. The proposed 486 SF deck on the north side of the residence will be partially covered with a 272 SF wood framed roof and equipped with an outdoor gas fireplace as shown on the site and floor plans (See Sheet A-2.010). A 266 SF deck is proposed on the south side of the residence, connected to the main living area on the west end.

#### Bocce Ball Court

A new 10' by 60' bocce ball court is proposed in the rear yard. The court is designed to carry water away from the bluff. A section of the proposed court is shown on the accompanying civil plans. Construction for the court will be specifically arranged to avoid excavation or disturbance to soils within the

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geologic setback as explained in a letter from the general contractor, Allen & Associate. The letter has been included with our application.

Fences, Walls and Privacy Screening

This area of Medcliff Road is heavily used by visitors to the adjacent dog friendly Douglas Family Preserve. In order to prevent unsolicited use of the front yard, an existing Eugenia hedge will be maintained and pruned to a maximum of 42" high along the northern, street-side perimeter of the property. A new 42" high fence will be located in front of the hedge.

Beyond the front setback, a new six-foot high (6') stucco wall or fence will provide privacy screening of the proposed pool and private open space. The wall will be of a stucco type on the east side between the garage and spa and then transition to tubular steel between the proposed spa and the west property line. Two (2) small wooden fences will secure access to the yard on the east and west sides of the property. Two (2) spring-loaded gates will be provided along the front, providing access to a small vegetable garden and the main residence. Existing fencing along the east and west property boundaries will be replaced with new wood fencing ranging from 2.5' to 8' in height as shown on Sheet A1.100.

#### Landscape and Hardscape

In general, the plant palette will be drought tolerant, low maintenance and will produce minimal amounts of green waste. As noted on Sheet L-1 of the landscape plan, all proposed landscaping will be "water wise" per SBMC 22.80.020. No invasive plants (i.e. on the 2006 CAL-IPC inventory) will be used in the plant palette. Automatic, low-volume drip irrigation systems will supplement natural rainfall. No irrigation is proposed on the bluff itself.

Plant materials will have an emphasis on seacoast appropriate shrubs, grasses and groundcover. On the ocean side of the residence, slope stabilizing plants will be used to preserve the bluff and minimize erosion to the maximum extent feasible. The owners also propose to install a new garden in the front yard which will include new citrus trees.

While working within the requirements and recommendations of the geologist and soils engineer, the hardscape design will minimize the use of impervious paving. Paving materials will be light-colored where possible to reduce heat absorption.

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#### Tree Removal and Replacement

A certified arborist, Bill Spiewak, was retained to analyze the on-site trees and provide recommendations for protection of trees which will be retained. A copy of the arborist report is provided with the application.

As noted in the report, the majority of on-site trees consist of small ornamental trees and a number of citrus trees planted by the previous owner. A small oak tree located near the south east corner of the existing residence and a specimen dragon tree located in the front courtyard will be protected in place. Most of the remaining trees will be removed, including several junipers in poor health located within the front setback. These trees will be replaced with healthier specimens more appropriate to the proposed landscape concept and with higher biological value.

The proposed disposition of all the on-site trees is shown on Sheet L-2 and summarized below:

Tree Type	DBH in inches	Proposed Disposition
Juniper	6"	Remove
Juniper	9"	Remove
Juniper	9"	Remove
Atlantic Cedar	13"	Remove
Avocado	8"	Remove
Citrus x 5	~6"	Remove
Guava	Multi - 3"	Remove
Oak	8	Retain and Protect
Dragon	24	Retain and Protect

Twelve (12) new replacement trees will be comprised of species such as Melaleuca, Arbutus and/or Evergreen Elm. They have been selected to provide shade and accent the appearance of the residence. Please see the Sheet L-1 of the drawings for a full list of the proposed plant palette.

Existing Trees	Removed	New	Total Post Project
13	11	12	14

#### Site Statistics

Working with the Office of Katie O'Reilly Rogers, the owners have focused on reducing on-site impermeable surface where ever possible. Consequently the proposed project will result in a nearly 50% reduction in impermeable

<sup>&</sup>lt;sup>1</sup> An application will be submitted to the Parks Department

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hardscape surfaces and an increase in open space and landscaping. The results can be seen in the following chart:

Lot Coverage	Existing SF (% of Site)	Proposed SF (% of Site)
Hardscape	4,639 (9.56%)	2,473 (5.10%)
Landscape/Open Space	40,892 (84.34 %)	42,173 (86.99%)
Buildings	2,953 (6.09%)	3,835 (7.91%)

#### Construction

Construction of the improvements, including demolition, is expected to take approximately 14 months. A Construction Management Plan was prepared by Allen & Associates which provides information on the expected number of workers and the type of equipment that will be used during the primary phases (demolition, grading and construction). The Plan is provided as an attachment with the application.

#### Lighting

Exterior lighting for the residence will be attractively designed and will minimize glare on neighboring properties. A typical fixture is shown on the drawings on the lighting plan on Sheet E1.000 and the plan will be reviewed by the Single Family Design Review Board.

#### Storm Water and Water Quality

Penfield & Smith has prepared a Drainage and Water Quality Analysis per the requirements of Public Works. The proposed plans will significantly improve onsite drainage patterns and shifts a significant amount of storm water run-off away from the bluff, minimizing the potential for bluff erosion from storm events. The project engineer states that, with the proposed drainage improvements, the proposed project drainage meets the requirements of the City of Santa Barbara for site drainage design and incorporation of Tier 3 requirements.

The applicant has submitted a request for a waiver from the Tier 3 requirements. Amongst the reasons for this request are that the proposed project already reduces onsite hardscape by over 50%. Additionally, compliance with the Tier 3 requirements would require the site to maintain an enormous 5,000 gallon storage tank which would not contribute significantly to reduction in offsite flows. Please see the waiver request from Penfield & Smith for additional information.

It should be noted that on-site storm water retention and percolation design is limited, as the recommendations of the Soils Engineering Report and Geologic

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Evaluation of the Coastal Bluff discourage storm water infiltration due to the project's proximity to the bluff.

#### **Geologic Evaluation**

The geology firm of Campbell Geo, Inc. was retained to provide recommendations and analysis regarding the proposed development. They were also asked to prepare a sea cliff retreat analysis that is in general conformance with the 2002 Coastal Commission Guidelines, as recommended in an early consultation with City of Santa Barbara planning staff.

Campbell Geo prepared a Geologic Evaluation of the Coastal Bluff in consultation with Prober Land Surveying and GeoSolutions. The evaluation included an analysis of previous geologic investigations, historical surveys, historical aerial photographs and physical evidence on the site to establish historic slope retreat rates at the site and develop recommendations for the project site.

The recommendations, including those with regard to landscaping and the treatment of storm water, are located on page 13 of the report and have been applied to the proposed project. All proposed development will be located landward of the recommended 75-year bluff setback (see also Plate 2 of the report).

#### Sustainable Concepts

The owners are very interested in incorporating sustainable design elements into the project which will help minimize the impacts of development on the surrounding environment and in some cases provide beneficial impacts. It is anticipated that the project will qualify for at least a level 3 Santa Barbara Built Green Certification and the project will apply for the certification.

Proposed sustainable elements include:

- Passive Solar Design: The south facing exposure of the existing structure will be utilized to increase the passive solar potential of the home. Shading will be considered for the south facing windows to block summer sun yet capture winter insulation. Natural, cross ventilation and a whole house fan will also be employed to eliminate the need for air conditioning.
- <u>Renewable Energy</u>: Solar hot water and photovoltaic panels will be
  utilized to offset electrical energy and natural gas demand. A 3 kilowatt
  photovoltaic system, domestic hot water and pool collector will provide
  most or all of the power for the residence.

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 Water Efficiency: Low flow fixtures and toilets are being considered in order to minimize domestic water demand and minimize water sent to the sewage system. 100% of the on-site landscaping will be "water wise", drought tolerant landscaping.

Please see the attached "Green Building Design Concepts" for a full list of proposed sustainable elements.

#### **Neighborhood Outreach**

The owners have personally met with many of the neighbors to discuss the concepts of the proposed development. They have also invited the nearby property owners to visit their home to review the submitted plans and architectural model and several neighbors have gone to the extent of writing letters of support for the project.

#### **Required Approvals**

- Planning Commission approval of a Coastal Development Permit for an addition and remodel to an existing residence adjacent to the Pacific Ocean
- Review and approval by the Single Family Design Review Board

#### **Supplementary Materials**

The following materials are provided with this application request:

- Architectural Plans
- Grading and Drainage Plan
- Landscape and Tree Protection Plans
- Geologic Evaluation of Coastal Bluff
- Preliminary Drainage and Water Quality Analysis
- Soils Report and Foundation Recommendations
- Arborist Report
- Photographs by SEPPS and Harrison Design Associates
- Construction Management Plan dated March 2011
- Green Building Concepts Summary
- Preliminary Title Report
- Letter from Allen & Associates dated May 2011
- Tier 3 Waiver Request from Penfield & Smith dated May 2011

The project itself will not negatively impact the health and welfare of the surrounding neighborhood community. It does not impact public or private viewsheds and the size, bulk and scale of the project is generally consistent with

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that of the neighborhood. It is consistent with applicable General Plan and Local Coastal Plan Policies regarding coastal development and bluff protection.

On behalf of the owners and the project team, we thank the Commission for their consideration of this request. I can be reached at (805) 966-2758 x11 should you or your staff have any questions.

Sincerely,
SUZANNE ELLEDGE
PLANNING & PERMITTING SERVICES

Steve Welton, AICP Senior Planner

Sis weets



## SINGLE FAMILY DESIGN BOARD CASE SUMMARY

2547 MEDCLIFF RD

#### MST2011-00151

#### **R-MAJOR ADDITION**

Page: 1

#### **Project Description:**

Proposal to construct a 1,285 square foot addition, including a 264 square foot loft and an attached 65 square foot pool equipment storage area, to an existing 2,645 square foot one-story single-family residence with an attached two-car garage. The residence is located on a 1.11 acre lot located in the Hillside Design District and in the Appealable Jurisdiction of the Coastal Zone. The proposal includes the removal of 11 existing trees, the demolition of a 91 square foot storage structure and a detached 65 square foot pool equipment shed. Other site alterations include the filling of an existing pool and construction of a new pool and spa, solar panels, new site stone and permeable patio areas, a new 436 square foot cantilevered wood deck, new site walls, fences, and landscaping, including a new six foot tall stucco wall and entry gate. A total of 335 cubic yards of grading is proposed. The proposed total of 3,930 square feet on the 1.11 acre lot is 78% of the floor-to-lot area guideline. The project requires Planning Commission review for a Coastal Development Permit.

#### Activities:

#### 4/25/2011

## SFDB-Concept Review (New) - PH

(Comments only; project requires Environmental Assessment and Planning Commission review for a Coastal Development Permit.)

(5:44)

Present: Tony Spann, Architect; Steve Welton, Agent; and Courtney Miller for Katie O'Reilly Rogers.

Public comment opened at 6:05 p.m. As no one wished to speak, public comment was closed.

Letters of support from Felicia Kashevaroff and Andy Erickson, and Junie Webb were acknowledged.

Motion: Continued indefinitely to Planning Commission to return to Full Board with comments:

- 1) The Board feels the proposed project is appropriate and compatible with the neighborhood.
- 2) The proposed project's overall style, size, bulk, and scale are acceptable.
- 3) The project's consistency of appearance and quality of proposed architecture and materials are acceptable.
- 4) The Board recommends the addition of a new street tree in the parkway; provide native plants along the bluff top.
- 5) A majority of the Board finds the proposed metal roof is acceptable.

#### R-MAJOR ADDITION

Page: 2

#### Activities:

6) The majority of the Board found the rear deck to be acceptable as it is a maximum of 18 inches above grade, and therefore not truly cantilevered.

Action: Miller/Bernstein, 6/0/0. Motion carried. (Deisler stepped down).

4/25/2011

SFDB-Mailed Notice Prepared

4/18/2011

SFDB-Correspondence/Contact

Contacted Steve Welton, of SEPPS, 7:40 a.m. 4/18/11. For SFDB please provide additional FAR information on the FAR of the "developable" area of the lot. The lot area is 1.11 acre, however, this parcel is on the coastal bluff so a portion of that lot area is not within the allowed "developable" area.

4/4/2011

SFDB-Posting Sign Issued

Needs to pick up for sign that is already paid for. Project exceeds 1,000 square feet of addition. Additional fee due.



## Tree Assessment and Protection Plan Location: 2547 Medcliff Rd., Santa Barbara March 23, 2011

Prepared for:

Courtney Jane Miller - Landscape Architect The Office of Katie O'Reilly Rogers 114 East De La Guerra St. / Santa Barbara, Ca 93101 (805) 963-2857 / (805) 963-2015 fax / courtney@kor-inc.com

Prepared by:
Bill Spiewak
Registered Consulting Arborist #381
American Society of Consulting Arborists

Board Certified Master Arborist #310B International Society of Arboriculture

3517 San Jose Lane, Santa Barbara, CA 93105 (805) 331-4075 / bill@sbarborist.com

#### SUMMARY

Ed and Joan Tomeo are proposing to improve their property at 2547 Medcliff Rd. in Santa Barbara. On the site are 13 trees: 7 fruit trees, 3 junipers, 1 cedar, 1 Dragon tree, and 1 Coast Live oak. Only the Dragon tree and the oak are to be retained.

The Dragon tree is in good condition and can easily be protected. The oak, on the rear east property line has poor form and hangs onto the neighbor's roof, but is being retained.

A new paver patio, to be installed on sand, will replace the existing concrete patio around the oak. Due to the limited area around the tree, the protection zone is limited. However, the oak in its current condition can not be sustained and the attention received relative to this project will hopefully improve its condition.

Three of the trees/shrubs to be removed are within the front yard setback. These trees include 2 junipers and 1 topped cedar. They will be adequately replaced with 5 fruit trees, 2 small and 1 larger tree (upon approval of the city arborist).

Compliance with the protection measures in this report will contribute to retention and protection of the two trees.

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#### **BACKGROUND**

I was contacted by Courtney Jane Miller, Landscape Architect at the Office of Katie O'Reilly Rogers, regarding new landscape development at 2547 Medcliff Rd., in Santa Barbara. There were trees on the site to be removed and others that needed protection and I was asked to participate as the arborist on this project. I was on the site during 3/10/11.

#### **ASSIGNMENT**

I have been assigned to assess the trees on the site and prepare a report with my findings and recommendations, including measures for tree protection of those trees to be retained.

#### **OBSERVATIONS**

#### **GENERAL**

- 1. The property is owned by Ed and Joan Tomeo.
- 2. There are 13 trees on the site. These include 7 fruit trees, 3 junipers, 1 topped cedar, 1 Dragon tree, and 1 native Coast Live oak.
- 3. The only two trees to be retained are the Dragon tree (*Dracena drago*) and the oak (*Quercus agrifolia*).
- 4. The dragon tree is in good condition, but a portion of its root zone is covered on one side by the existing concrete walkway to the front door.
- 5. The oak is on the property line between the Tomeo's and the eastern neighbor. This tree has poor form and a large portion of the foliage is on top of the neighbor's roof. It also appears to have been in decline (possibly from oak worm) but currently looks to be recovering (see photo).
- 6. Two of the junipers and the topped cedar (see photo), are within the front yard setback. These trees/shrubs will be replaced with new trees, as per the landscape plan.

#### TREE INVENTORY

The numbers in the table below correspond with tree numbers on the site plan.

Tree #	Туре	DBH	Condition	Comment
1	Atlantic cedar	13"	Poor structurally, topped to less than 20'	Remove for project.
2	Juniper	6"	Fair-topped and shrub-like	Remove for project.
3	Juniper	9"	Good-tall for juniper	Remove for project.
4	Juniper	9"	Fair-topped and shrub-like	Remove for project.
5	Avocado	8"	Fair-chlorotic	Remove for project.

Tree #	Туре	DBH	Condition	Comment
6	Dragon	22"	Good-dense crown. Note that roots are enveloping the edge of the concrete walkway.	Walkway is to be removed and replaced with a wood deck over the root zone on the northwest side. Hand demo. Protect root zone with fencing and plywood (see tree protection measures). Also protect during bldg. Construction on the east and south sides.
7	Citrus	5"	Good	Remove for project.
8	Guava	Multi 3"	Good	Remove for project.
9	Citrus	6"	Good	Remove for project.
10	Citrus	6"	Good	Remove for project.
11	Citrus	6"	Good	Remove for project.
12	Citrus	6"	Poor declining	Remove for project.
13	Oak	10"	Poor structurally. Canopy appears to be recovering from a previous problem. Tree is on property line. Crown is poorly formed and severely overhangs/grows into neighbors house and roof.	Pruning will remove limbs off neighbor's roof but improvement in form is limited. Pavers on sand will replace the existing patio. Follow tree protection measures.

#### THE PROJECT

The project includes a major renovation of the front of the house, a new pool, and new landscape. As a result, all trees will be removed, except for the oak and the dragon tree.

- Three trees within the front yard setback (2 junipers and a small topped cedar) will be replaced with several fruit trees, two small landscape trees, and one larger tree.
- The Dragon tree may incur some minimal impacts during new construction at the front of the house and demolition of the front walkway. However, its fibrous root zone is quite resilient and will be protected to the greatest extent feasible. A fibrous root system has a growth pattern much different than a tap root system (of woody trees) and can sustain significant encroachment into their root zones. The concrete walkway will be replaced with a wood walkway supported by piers and beams, and will minimize impact to the root system. Other landscape plants will also be installed.
- Although the oak tree has poor form, it will be retained and pruned. The existing
  patio will be replaced with pavers on top of sand. The attention given to this tree
  as a result of the project, can only provide some improvement to its condition.

#### CONCLUSIONS

- The landscape development as proposed will not damage the trees to be retained, provided tree protection measures are followed.
- The removed trees/shrubs within the front yard setback will be adequately replaced and improved upon from what currently exists.

#### TREE PROTECTION MEASURES

- 1. Prune the Dragon tree, if desired, prior to construction.
- 2. Prune the oak prior to construction. Remove branches off the neighbor's roof and crown clean and crown thin to improve the form.
- 3. Prior to building and pool construction, install fencing around the Dagon tree as depicted in the site plan. This is a tree protection zone (TPZ) that must be void of all activities and storage and dumping of all materials.
- 4. After construction and prior to landscape work, remove the fencing around the Dragon tree.
- 5. Cover the newly exposed TPZ, that was previously fenced, with plywood to minimize soil compaction by workers.
- 6. Hand demolish the concrete around the Dragon tree.
- 7. Irrigate the area where roots were cut.
- 8. Cover the newly exposed root zone with more plywood until ready for landscape installation. Only expose work areas as needed being sure to keep non-work areas protected. Eventually all plywood will be removed as the landscape evolves.
- 9. Prior to patio work, install tree protection fencing adjacent to the oak, along the outer edge of the planter bed. Due to the limited work area, the fence identifies the tree to workers as a tree that needs to be protected to the greatest extent feasible. The root zone cannot be completely protected due to the demolition of the existing patio and installation of the new surface.
- 10. When demolishing the existing patio surface around the oak, use hand tools to minimize damage to absorption roots below the concrete.
- 11. Hand grade to the necessary depth (for the new surface) and cleanly cut any roots that are ½" and greater.
- 12. Irrigate the area to supply moisture to the roots and encourage new root growth either before or after paver installation.
- 13. Construction work around trees should be monitored by the project arborist, the landscape architect, or the property owner to assure that trees are protected as recommended above. Protection zones are limited and these trees are relatively resilient. However, damage can easily occur due to negligence by workers.

# ARBORIST DISCLOSURE STATEMENT AND CERTIFICATION OF PERFORMANCE

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

I Bill Spiewak, certify:

That I have personally inspected the trees on the property referred to in this report and have stated my findings accurately.

The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and commonly accepted arboricultural practices.

Signed:

Bill Spiewak

Registered Consulting Arborist #381 American Society of Consulting Arborists

Board Certified Master Arborist #310B International Society of Arboriculture



## **PHOTOS**



Above: A photo of the oak in the rear yard to be protected. Hopefully with some aggressive pruning, the tree can be improved.

Below: The Dragon tree in the front yard. This tree will be lightly pruned and protected.





Above: Topped Cedar. It's upright, excurrent form, has been severely altered.

Below: Cedar (same as above) and two junipers, one was topped (arrows).



# CAMPBELL.GEO, INC.

Engineering Geology · Hydrology · Geoenvironmental Services

#### GEOLOGIC EVALUATION OF COASTAL BLUFF

Tomeo Property 2547 Medcliff Road (APN 041-362-016) Santa Barbara, California

March 25, 2011



Prepared for

2547 Medcliff LLC 516 Sugarpine Drive Incline Village, NC 89451

Attention: Mr. Ed Tomeo

# CITY OF SANTA BARBARA PLANNING DIVISION

#### Prepared by

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## CAMPBELL GEO, INC.

Engineering Geology · Hydrology · Geoenvironmental Services

March 25, 2011

2547 Medcliff LLC 516 Sugarpine Drive Incline Village, NV 89451

Attn: Mr. Ed Tomeo

Subject: Geologic Evaluation - Coastal Bluff near Proposed Residential Remodel

2547 Medcliff Road /APN 041-362-016

Santa Barbara, California

Dear Mr. Tomeo:

#### INTRODUCTION

Pursuant to our proposal dated January 6, 2011, we have prepared this summary report providing a geologic evaluation of the coastal bluff adjacent to the proposed residential remodel at 2547 Medcliff Road in Santa Barbara, California. (Please see Plate 1 – Project Location Map.) Included is a site specific evaluation of future coastal bluff retreat and a recommendation for a structure setback to accommodate 75 years of blufftop retreat. The 1978 City of Santa Barbara Geologic Hazards regional report (Hoover) established a generalized seacliff setback line for new construction, which is inland of the existing structure for the Tomeo property. The Hoover report notes that site specific studies can demonstrate an alternate appropriate setback for new construction.

This report has been prepared in general conformance with the California Coastal Commission's Statewide Interpretive Guidelines and with Johnsson (2002). The existing and proposed development evaluated for this report is depicted on site plan sheet A-1, dated March 2011, prepared by Harrison Design Associates Architects. A topographic map from a 2010 site survey has been prepared by Prober Land Surveying. Subsequent analysis of historical survey data and March 2011 field work have been conducted by Prober.

It is our understanding that one deck is proposed for the area on the south side of the residence, adjacent to the upper edge of the coastal bluff and near the western end of the residence. A very small (121 square feet) addition is also planned at the west end of the existing residence, as well as structural additions north of the residence. To meet 2010

California Building Code requirements (Section 1805.3.2) pertaining to setback from all slopes, a deepened foundation system design is anticipated for at least the new deck and possibly a portion of the other proposed improvements.

#### PREVIOUS WORK

Preliminary geologic/geotechnical investigations of the residential remodel project were conducted by Adam Simmons, consulting geologist (report dated December 2, 2010), and by GeoSolutions, Inc. (report dated October 14, 2010). The geologic report (Simmons) concluded that, on the basis of site mapping and historical aerial photograph analysis, a development setback of 12 feet from the current top of bluff on the west side of the property should be used and that on the east side, a 24-foot setback was appropriate. Simmons noted the existence of previous dip slope translational (bedding plane) failures in the area. Simmons also noted that a deep foundation system may be needed to meet current California Building Code (CBC-2010) requirements pertaining to development located adjacent to slopes. Simmons did not utilize historic survey monuments or a survey based evaluation of slope retreat at the toe of the bluff.

The geotechnical soils engineering report (GeoSolutions) included a computer model analysis to evaluate the static and pseudo-static stability of the coastal bluff along a cross-section drawn at and parallel to the eastern property boundary, using the topography plotted on the 2010 Prober Land Surveying map. (Due to limitations preventing surveyor access to all portions of the steep coastal bluff, a portion of the 2010 survey sheet shows topography transferred from the 1997 City of Santa Barbara survey sheet for the face of the bluff from the top edge to the beach.) GeoSolutions concluded that the existing coastal bluff was stable, exceeding geotechnical Factors of Safety of 1.5 and 1.1, for static and pseudo-static conditions, respectively. Additional analyses conducted in March 2011 by Prober Land Surveying and GeoSolutions are described in the Investigation section below.

#### SITE CONDITIONS

#### **Topography**

The coastal bluff adjacent to the Tomeo residence rises from sea level to an elevation slightly exceeding 150 feet. The topography shown on Plate 2 – Geologic Map and the cross-sections depicted on Plates 3 and 4 – Geologic Cross-Section indicate an overall slope ratio, horizontal to vertical, of approximately 1.4:1 or a 70% gradient. Based on two elevation transects conducted by the surveyor in March 2011, the present-day slope gradient closely matches the slope contours on the 1997 topographic map. The "Top of Bluff" line established by the surveyor on the topographic base map for Plate 2 has been verified by our field work.

The unique feature of the coastal bluff is the separate topographic ridge that exists on the oceanward side of a west-to-east trending drainage ravine that extends toward the eastern side of the property. For most of the area adjacent to the Tomeo residence, that ridge forms the top edge of the coastal bluff, rather than the top edge of the slope closest to the residence.

Under the California Coastal Act, the bluff edge is defined as "...the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff face, the bluff line or edge shall be defined as that point nearest the cliff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the cliff. In a case where there is a steplike feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge ..." (California Code of Regulations Title 14, §13577 (h)(2).

Thus, the western portion of the top edge of the slope adjacent to the residence is, by definition, not the edge of a coastal bluff affected by marine processes (e.g., wave attack). However, other slope erosion processes will occur in that "non-coastal" slope area. Further, we have incorporated the estimated retreat rate at the toe and the slope stability analysis for both the west and east sides of the property, without regard to CCR Title 14 definitions.

#### Geology

The property, including the coastal bluff, is underlain by a thin cap of Quaternary-age unconsolidated marine terrace deposits (Qmt) and the Tertiary-age middle member of the Monterey formation (Tmm). The transitory beach sand deposit (Qbs) is mapped at the toe of the bluff. In this area, the Monterey is a moderately to very hard shale, due to a relatively high percentage of silica. Outcrops are tan to light gray and exhibit thin to medium bedding. On the Tomeo property, the geotechnical data from shallow borings also indicated high blow counts, where the SPT sampling tool with 50 blows from a 140-pound sampling hammer was able to penetrate only 2 inches of shale in some locations. Based on our discussion with the geologist who performed the work, extremely difficult drilling conditions were encountered during a geotechnical investigation conducted last year on the nearby vacant lot at La Jolla Drive, consistent with our observations of the outcrops in the general area.

Significant erosion in the drainage feature leading from adjacent properties on the west and scattered debris disposed in and near that drainage were observed in the bluff during our site visits. No fractures indicative of imminent large bluff failures were found. No active, catastrophic bluff failures were observed; however, an area with a thick section of colluvium and bedrock fragments was noted, possibly indicative of previous slope failure in the upper to mid-slope area. That area is also evident in at least one of the historic aerial photographs. The upper and mid-slope was also found to contain scattered trash/debris, with quite a bit of concrete in the drainage ravine.

A regional map of landslides in southeastern Santa Barbara County (Bezore and Wills, 1999) shows a "dormant-mature landslide" on the coastal bluff adjacent to the Douglas Family Preserve. Due to the map scale, the map erroneously shows the landslide boundary extending onto the Tomeo property.

The structurally complex folding of the Monterey formation has resulted in a condition where sedimentary rock bedding planes exist at various dip angles. In some portions of the bluff, beds are dipping toward the ocean at an angle that is flatter or less steep than the angle of the slope face. This is called "daylighted" bedding, where the bedding plane surfaces can form landslides. In other areas of the Mesa, where daylighted bedding plane

angles are relatively uniform and extensive, slope failures have developed, such as the 1978 landslide at El Camino de La Luz, located one-half mile to the east. However, at Medcliff Road, the bedding angles are not uniform and in much of the slope the bedding is dipping into the face of the slope, creating a very stable structure. The geologic structure is illustrated on the cross-sections (Plate 3 and 4). The moderately complex folding of the visible bedding at the Medcliff Road area indicates that some bedding plane failures can occur (and have occurred) at the toe and mid-section of the bluff, but that the failures are less likely to extend completely to the top edge of the bluff where the Monterey formation beds are flat or shallow dipping. The geologic structure is discussed further below in <u>Site Mapping</u>.

#### Groundwater

Groundwater was observed at the toe of the seacliff face during our January/February 2011 field work. Groundwater was also reported in one of the borings (GeoSolutions, B-2) located near the garage. The depth of groundwater there (9 feet) indicates a perched condition on the upper surface of the Monterey formation. Shallow groundwater may exist in other locations for periods after heavy rainfall events. In general, the groundwater that daylights in the bluff face ("spring sapping") can reduce the overall stability of coastal bluffs. However, at the Tomeo property, due to the presence of hard siliceous shale and based on the apparent low rate of erosion at the toe of the slope, as measured and reported below, spring sapping was not adversely affecting the slope during our early 2011 field work.

#### INVESTIGATION

#### Analysis of Aerial Photographs

We have obtained historical stereo pair aerial photographs from 1928 (Fairchild, C-311, frames A-9, A-10), 1938 (Fairchild, C-4950, F-73 and F-74), 1953 (Fairchild(?), CC-1-46, -47, -48), 1967 (Hurd, HB-JW-120, -121), and 1995 (Pacific Western, PW 55010-26, -27), and a 2010 image obtained from a web-based source (Bing). Aerial oblique (non-vertical) photographs were also reviewed from flights that date back to 1972 (the California

Coastal Project). From stereoscope evaluations and magnification of the images, the following information is evident. The 1928 and 1938 photos are poor to fair quality and are of a scale that makes them not particularly useful. The 1953, the 1967, and, to some extent, the 1995 photos are better quality and scale. These photos show no major landform changes on the bluff over those years. The 1953 and 2010 aerial photos are part of Plates 5 and 6 and additional selected photos are included in Appendix A.

The ravine draining from the west and then to the beach (south) appeared to be more deeply incised in the 1953 aerial photo, at a time when the adjacent Wilcox property (now known as the city's Douglas Family Preserve) was developed with an ornamental plant nursery operation. It is likely that the extensive coverage of structures seen over most of the Wilcox area resulted in higher rates of stormwater runoff at that time, probably causing the more deeply incised drainage to form at the Tomeo property. Although it is not completely clear (due to the photo scale), but prior to the nursery construction, earlier photos (1928) do not appear to show that feature. Furthermore, the drainage has "softened" or become less topographically prominent in the years since the removal of the nursery more than 25 years ago.

The Tomeo site was undeveloped as of 1953. The 1967 and 1995 photos show the Tomeo residence in the same approximate footprint as observed today. The photo quality and orientation were insufficient to allow a photogrammetric reconstruction of the topographic map of the seacliff over time. However, in the 1953, 1967, 1995, and 2010 photographs, several distinct rock outcrops are clearly visible in each photograph in the tidal zone. Those outcrops are fixed geologic features that have not retreated or otherwise moved due to erosion. The outcrops are shown in the attached aerial photographs. By using scaled and surveyed distances between the fixed/stationary outcrops and the slowly eroding toe of the bluff, the 58-year retreat at the toe of the coastal bluff adjacent to the Tomeo residence appears to be less than 10 feet, as discussed further below.



#### Site Mapping

A detailed geologic mapping effort was conducted on the Tomeo property, from the top to the bottom of the 150 foot high coastal bluff. The mapping was conducted by geologic personnel (Mike Maguire, California Professional Geologist and Steve Campbell, California Certified Engineering Geologist). The geologic map and cross-sections are shown on Plates 2, 3, and 4. Data reported by Simmons from the 2010 boreholes has also been included. The mapping shows that a series of folds, with fold axes trending in a direction that is sub-parallel to the face of the bluff. The folds are well exposed in the Monterey formation outcrops at the beach and partway up the slope. A prominent anticline fold is well exposed in the seacliff, where it trends offshore to the east at a point a few hundred feet down-coast of the Tomeo property. The axis or "hinge" of the fold has flat to nearly flat bedding; therefore, areas underlying or near the axis are quite stable. The seacliff east of the Tomeo property is a high, near vertical face, along which the axis of the fold runs. Massive failures of that cliff face have not occurred along bedding planes because the rock bedding is in a relatively flat and stable orientation. The axis of the fold trends into the slope and, based on measurements from surface outcrops and reported from boreholes, leads to the area under the Tomeo residence. The existence of the fold axis under the residence indicates that it is not affected by daylighted bedding and is on a stable bedrock platform.

#### Analysis of Survey Data

We obtained and reviewed historical surveys of this local area of the Mesa conducted in 1927 (Flournoy, County Assessor's Book 18, Page 225), in 1958 (State Lands Commission, Book 41, page 61), in 1961 (Martin Associates, Book 55, pages 7 & 8), in June 1965 (City of Santa Barbara Topographic Map, Sheet 34), in 1972 (Penfield and Smith, Book 86, Page 68), in 1977 (Penfield and Smith Book 94, page 94), in 1990 (MNS Engineers, Book 48, page 24), and in 1997 (City of Santa Barbara Topographic Map, Sheets C12 and C13). Some of these survey sheets are attached in Appendix B. A 2010 survey of the Tomeo property was conducted by Prober Land Surveying. Mr. Jeff Prober has reviewed these historical surveys with Campbell Geo and has provided input and interpretation. The

historical surveys show property corners and some other property features. In the 1927 survey, a survey monument denoted as "set near top of bluff" is shown in a location that is on the present-day eastern boundary of the Tomeo property. Mr. Prober confirms that same monument location is marked by the present-day monument "LS 3310," shown on Plate 2. That monument, located "near the top of bluff" 84 years ago (1927), is currently located 5 feet from the top edge of the bluff.

A comparison of the 1927 eastern survey monument location relative to the current top edge of the coastal bluff can be made. An assumption is made that the "near top of bluff" note from 1927 means that the monument was set originally 10 feet or less from the top edge. As confirmed by Prober Land Surveying, that is consistent with survey field methods and the requirement for monuments to be visible for line of sight work when survey shots are collected from other portions of the property, especially downslope. The 10-foot assumption is also generally consistent with the 1961 "top of bluff" notation on that survey sheet. Therefore, if the difference in the location of the top edge of the bluff relative to the monument between 1927 and 2011 indicates less than 5 feet of retreat over 84 years, that is equivalent to an average rate of retreat of less than 0.06 feet per year. Over 75 years, at a retreat rate of 0.06 feet per year, total retreat at the top of the bluff equates to slightly less than 5 feet for the 75-year design life of the proposed project.

A second monument shown on the 1927 survey was previously located 280.78 feet northwest of the LS 3310 monument, or approximately 100 feet west of the present day west boundary of the Tomeo parcel. During field work by Mr. Prober on March 1, 2011, a search for that second monument to the northwest was made, based on the reported distance and compass bearings. Although the second monument was not found, the present-day slope at the location determined by the surveyor was found to be very close to and on the inland side of the upper edge of the current top of slope, rather than in an area where the slope had retreated inland, past the location of the 1927 western monument. By this reasoning, we conclude that the top of slope location has also changed very little in the vicinity of the western side of the Tomeo property. That conclusion has been confirmed by Mr. Prober.

In addition to the 1927 monument, the 1961 survey shows a line marked as "top of bluff" that extends east from nearly the same location as the 1927/2010 monument on the eastern Tomeo property boundary. A survey monument reportedly set in 1990 (MNS) on the west boundary of the Tomeo property at the point 119 feet southwest from the street curb was not found by the 2010 survey work. However, according to Mr. Prober, that point was most likely set to mark pre-established acreages as part of the lot split at that time, rather than marking a top of bluff reference.

Future setbacks from bluff retreat must also consider retreat rates at the toe of the slope. To be consistent with California Coastal Commission guidelines (Johnsson, 2002), the analysis of slope stability should include the slope formed after 75 years of erosion at the toe of the coastal bluff.

Using the 1965 and 1997 City of Santa Barbara Topographic sheets, good quality low altitude aerial photography from 1953, 1967 and 1995, and a March 2011 survey of the current location of the bluff toe by Prober Land Surveying, a comparison of distances from various fixed rock outcrop markers to the toe of the coastal bluff can be made for the 58 years between 1953 and 2011. The details in the historic topographic maps do not allow precise measurement of the historic location of the toe of the bluff relative to fixed features, but it is clear that the topography between 1965, 1997 and 2011 is mostly unchanged.

Due to the absence of surveyed ground control during the flights, and low altitude distortions, the aerial photographs also do not allow a precise photogrammetric measurement of the bluff toe location. However, unique and distinct rock outcrops are visible in the tidal zone adjacent to the toe of the seacliff. A survey of those numbered outcrops was made at the same time that the current toe of the seacliff was precisely surveyed on March 1, 2011, as shown on Plates 5 and 6. The same numbered rock outcrops are shown in the attached March 2011 site photograph (Plate 7) and are shown in the attached aerial photographs in Appendix A.

The shape of the toe of bluff itself today is very similar to features visible in the 1953 aerial photo. From the photodata and the survey, it is clear that the toe of the seacliff has not retreated more than 10 feet in the 58 years between 1953 and 2011. The maximum 10-foot

difference divided by 58 years yields an average retreat rate at the toe of the slope of less than 0.17 feet per year. That figure, projected for 75 years of future retreat, equates to an average total retreat of less than 13 feet at the toe of the seacliff. As shown on Plates 3 and 4, a theoretical 75-year future slope is drawn across the steepest portion of the slope from the future retreated toe to the current top edge of the coastal bluff. That conservative future slope ratio is approximately 1.3:1, horizontal to vertical.

#### Geotechnical Analysis

GeoSolutions has performed a supplemental static/pseudo-static analysis of the theoretical 75-year future slope as constructed in Cross-Section B-B' (Plate 3). The 75-year future slope in Cross-Section C-C' (Plate 4) is no steeper or higher than the slope shown in B-B'; therefore, a second slope stability analysis was unnecessary. The analysis was conducted by the computer model SLOPE/W and previously determined laboratory-derived rock strength parameters. Based on the cross-sections provided, GeoSolutions has determined that the static Factor of Safety of the future 1.3:1 slope configuration is 2.40 and the pseudo-static (seismic conditions) Factor of Safety is 1.85. Slopes meeting minimum Factors of Safety of 1.5 (static) and 1.1 (pseudo-static) are considered to be stable. A final copy of the March 2011 GeoSolutions report was expected to be available within a short time after the date of this report.

#### COASTAL BLUFF PROCESSES

Coastal bluffs or seacliffs exist in very dynamic geologic environments. The risk associated with development of near-shore coastal property is well-documented up and down the California coast by damage or loss of structures built too close to the shoreline (Norris, 1995). Erosion and retreat of coastal bluffs are relentless processes and do not occur at a constant rate. Coastal retreat and erosion are controlled by seismic, climatological and marine conditions (beach sediment supply and wave attack) that vary greatly year by year. The marine conditions can also be quite variable between locations. Sites also vary from location

to location in slope geometry, beach morphology, geologic conditions, drainage, and vegetation cover. Coastal bluffs are exposed to physical and chemical erosion processes that include direct wave attack, spring sapping (high groundwater), erosion by direct rainfall or uncontrolled surface water flow, and fracturing by salt crystal formation. All coastal slopes will therefore "fail," over geologic time, by catastrophic massive failures of large volumes of material, by slow erosion of granular size soil/rock fragments over hundreds or thousands of years, or by many variations of slope failure and erosion between the two extremes.

#### Sea Level Changes

Due to climatological changes over the past 100 years, average worldwide sea level has been rising approximately 1 to 2 millimeters per years since the end of the "Little Ice Age" in the 19th century (USGS, 2000 and Douglas, 1995). The National Oceanic and Atmospheric Administration (NOAA, 2006) maintains records of sea level changes for various west coast locations. The Los Angeles and San Francisco stations are the closest two with long histories of recordations. The average annual increase in sea level is 0.84 mm/year at Los Angeles since the 1920s (NOAA, 2006) and the annual average at San Francisco is 1.5 mm/year (USGS, 2002). Assuming local sea level rises 1.5 millimeters per year over the next 75 years, then the total rise in seal level would be 113 millimeters, equivalent to 0.37 feet or 4.4 inches. This rise is not globally uniform and there is considerable debate regarding the accuracy of the annual rate as well as prediction of future sea level changes. Intergovernmental Panel on Climate Change in the most recently published report (2007) provides a worldwide range of total sea level rise at 2099 to be between 0.18 and 0.59 meters (between 7 and 23 inches). A 2009 study prepared by the California Climate Change Center provides model simulations showing sea level rise on the west coast of North America of 16 inches by 2050 and 55 inches by 2100. The 2009 report states that these simulations are "not predictions."

#### **CONCLUSIONS**

The existing coastal bluff exceeds the geotechnical Factor of Safety of 1.5 for stability under static conditions and exceeds the Factor of Safety of 1.1 under pseudo-static conditions, based on analyses conducted by GeoSolutions.

Based on the present-day location of a 1927 survey monument and the current distance between that monument and the top of slope, the historical rate of retreat of the top of the coastal bluff at the Tomeo property has been roughly 0.06 feet per year in the vicinity of the eastern property boundary. That rate equates to 4.5 feet of retreat at the top of slope over the next 75 years. Total retreat at the toe of the bluff is projected to be less than 13 feet over the next 75 years. A geotechnical analysis (GeoSolutions) was conducted for the stability of a future, steeper coastal bluff, formed by 13 feet of retreat at the seacliff toe by year 75, with the future slope inclined at a ratio of 1.3:1, horizontal to vertical. The analysis found an adequate factor of safety under static and pseudo-static conditions, based on the cross-section B-B', for the future 1.3:1 slope. Therefore, retreat at the toe should not affect the location of the top edge of the bluff over the next 75 years. A 75-year structure setback line based on the stable slope and future rate of estimated bluff-toe retreat is shown to extend 7 feet inland from the top of slope on Plate 2.

The seacliff retreat rate will be higher in some years and lower in others, subject primarily to climatological conditions. We conclude that the proposed deck is feasible with a deep foundation system that would be necessary to meet the 2010 California Building Code. The other improvements shown on the March 2011 plan are also feasible with respect to the seacliff setback.

#### **RECOMMENDATIONS**

Existing iceplant and other vegetation on the seacliff face can and should be left in place to minimize shallow soil disturbance and erosion. New plantings at the top of bluff and the adjacent yard should be drought-tolerant, preferably requiring no supplemental irrigation. To minimize the need for irrigation to get plants established, new planting should be conducted in late fall.

We recommend that drainage controls be implemented to prevent surface water runoff over the seacliff face. Landscaped areas should have hard pipe drainage systems. The runoff should be conveyed to an area, such as Medcliff Road, where the seacliff will not be eroded. No stormwater should be captured for onsite infiltration or otherwise retained onsite, except for temporary storage to smooth out discharge spikes, per the city's current policy for new development. The proposed pool is to be located no less than 60 feet from the bluff top setback, north (inland) of the existing residence. Should leakage be noted by anomalous water level drops, the pool should be emptied until the leak is repaired. Should shallow groundwater be found to daylight in the bluff face after development is complete, irrigation practices should be modified to the extent necessary to correct that condition or an investigation of other possible sources (pool leakage, broken pipes, etc.) should be conducted. We recommend that final grading, foundation and landscape plans be provided for our review.

#### LIMITATIONS

This report is not intended to provide a warranty against excessive future seacliff retreat. The conclusions are based on currently available data and locally recognized methods of geologic interpretation.

This report has been prepared for the sole use of the current property owner. In the event that new construction is proposed 10 or more years after the date of this report, the blufftop setback line should be verified by a licensed professional using methods similar to those used in this investigation.

Please contact us if you have any questions.







Sincerely, Campbell·Geo, Inc.

Steven H. Campbell
Professional Geologist
State of California, #5576
Certified Engineering Geologist
State of California, #1729



Michael P. Maguire, Jr.
Professional Geologist
State of California, #8818

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cc: Suzanne

Suzanne Elledge Planning & Permitting Services

Attn: Mr. Steve Welton

Attachments:

Plates (7) Appendices

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CITY OF SANTA BARBARA

PLANNING DIVISION

May 16, 2011

Ms. Autumn Malanca City of Santa Barbara Creeks Restoration/Water Quality Division 620 Laguna Street Santa Barbara, CA 93101

Subject: 2547 Medcliff Road, MST#2011-00151, APN: 041-362-016

Dear Ms. Malanca:

This letter is a follow up to our DART review meeting held on May 10<sup>th</sup>, 2011. At that meeting you instructed the project team to submit written justification for an exemption from the City of Santa Barbara's Storm Water BMP Guidance Manual Tier 3 requirements.

The following describes how the project development has already met the Tier 3 requirements based on the plans submitted for the initial DART review, and reasoning to be exempt from the Tier 3 volume reduction requirement to retain on site the 1" storm event:

- Normally a project like this which proposes approximately 2,800 square feet
  of new or replaced impervious area would be required only to meet Tier 2
  standards. Although City policy requires discretionary projects to meet Tier 3
  standards, we understand that there is some flexibility in cases where the
  strict application of such standards can be demonstrated to be infeasible
  and/or unnecessary.
- As reported in our Drainage & Water Quality Analysis provided for DART review, the proposed project meets the Peak Runoff Discharge Rate Requirement of decreasing the post-development peak storm water runoff discharge rate for the 2, 5, 10, and 25-year 24-hour storm events. This was accomplished by eliminating 1,375 square feet of impervious area from the existing to proposed condition (7,259 SF Existing Condition vs. 5,884 SF Proposed Condition).
- The Water Quality Treatment Requirement has been incorporated into the plans as much as feasible while also meeting the recommendations of the soils engineer which state that infiltration shall not be allowed due to concerns about long-term bluff top stability and erosion. Specific drainage recommendations listed in the Soils Engineering Report dated October 14, 2010 and prepared by GeoSolutions, Inc. are the following:

- > All final grades shall be provided with a positive drainage gradient away from foundations. Final grades shall provide for rapid removal of surface water runoff. Ponding of water shall not be allowed on building pads or adjacent to foundations.
- > Concentrated surface water runoff within or immediately adjacent to the Site shall be conveyed in pipes or in lined channels to discharge areas that are relatively level or that are adequately protected against erosion.
- Water from roof downspouts shall be conveyed in solid pipes that discharge in controlled drainage localities. Surface drainage gradients shall be planned to prevent ponding and promote drainage of surface water away from building foundations, edges of pavements, and sidewalks.

Filtering surface materials and vegetation are proposed around the site and concentration times have been maximized as much as possible given the requirement that surface drainage be collected quickly with inlets and be hard piped. Any rainfall that lands on the bocce ball court will also be filtered through the turf and rock base materials prior to connecting to the onsite storm drain system. Filtering will also occur at the proposed planter boxes incorporated at the garden and at other numerous above ground pots. In the unlikely event that sediment reaches the pumping unit, there is also room at the bottom of the small storm pumping unit for fines/sediment/trash to settle out prior to being pumped.

Filtering using underdrains is not recommended even if liners are incorporated due to the potential to introduce runoff to the bluff and decrease bluff stability because the liners will likely inevitably fail. Redesigning the front yard to drain to the pool in an attempt to allow for additional rainfall capture/detainment is also not recommended because it is a poor grading design practice, there would be health concerns from having runoff potentially carry pollutants into the pool, and would cause a concentrated ponding problem in large storm events from overflowing the freeboard of the pool.

- The Volume Reduction Requirement to retain onsite the volume of a 1" storm event would require a 5,000 gallon double-walled fiberglass tank (8' Diameter x 18' long). We request an exemption from having to install such a large underground tank for the following reasons:
  - > The overall footprint of installing an 8' Diameter x 18' long tank would occupy a large portion of the front yard of the property.
  - ➤ The tank would have to be double-lined, due to the property being on the bluff, which is more expensive than a standard single-lined tank. Cost for such could range around \$12,000-\$15,000.
  - ➤ Costs to consider do not end at the cost for the tank itself. Other costs to consider would include the required pump, electrical & control panel for the pump, shoring for a 14' deep excavation, equipment & labor for a 14' excavation, and hauling off of approximately 35 cubic yards of export material that the tank replaces. Taking in all of these cost considerations and including the double-lined tank, the total cost to satisfy this requirement really runs the owner around \$40,000. This would represent 2.7% of the overall project cost (\$1,500,000), which is well in excess of the 2% threshold typically

applied by the City in an effort to ensure that proposed mitigations are proportional to the project.

- ➤ Requiring a tank to hold a 1" storm event for this project serves no technical purpose since the proposed project condition already will decrease the peak runoff flow rate (1.23 cfs to 1.21 cfs for a 25-yr storm event) and overall volume (0.150 acre-feet to 0.142 acre-feet for a 25-yr storm event). Installing a tank will not reduce any additional volume. The volume the tank would store cannot be reused for irrigation purposes as the tank must be emptied after each storm event to make room for the following storm event. Therefore according to Appendix J of the City of Santa Barbara's Storm Water BMP Guidance Manual, Tier 3 requirements may be technically infeasible and exempt from the project.
- In consideration for the volume reduction requirement exemption, we would like the City to consider the following proposed features of the project that will benefit the proposed project site and surrounding area:
  - ➤ It decreases the post-development peak storm water runoff discharge rate for the 2 (1.9%), 5 (1.2%), 10 (4.0%), and 25-year (1.6%) 24-hour storm events.
  - > It collects and filters storm drainage prior to reaching public right-of-way.
  - > It improves overall site drainage and decreased infiltration.
  - It decreases runoff to the bluff top and slope which in turn improves the bluff and slope stability.
  - > It eliminates current surface runoff onto the neighboring property to the east.
  - > The project applicant proposes to voluntarily install numerous other green features into the project (please see project description and attachments).
  - > The project applicant has utilized all feasible measures to achieve the greatest compliance possible.

We respectfully request the project be considered to be exempt from the Tier 3 volume reduction requirement which would require the installation of the 8' Diameter x 18' long underground storage tank. Should you require additional information or wish to discuss this further, call me at (805) 963-9538 ext. 132. Thank you for your review and consideration.

Very truly yours,

PENFIELD & SMITH

Pete Silvia, P.E.

Senior Engineer, RCE 70435

Cc: Ed Tomeo -- Project Owner, Glen Deisler -- Project Architect, & Steve Welton -- Project Planner